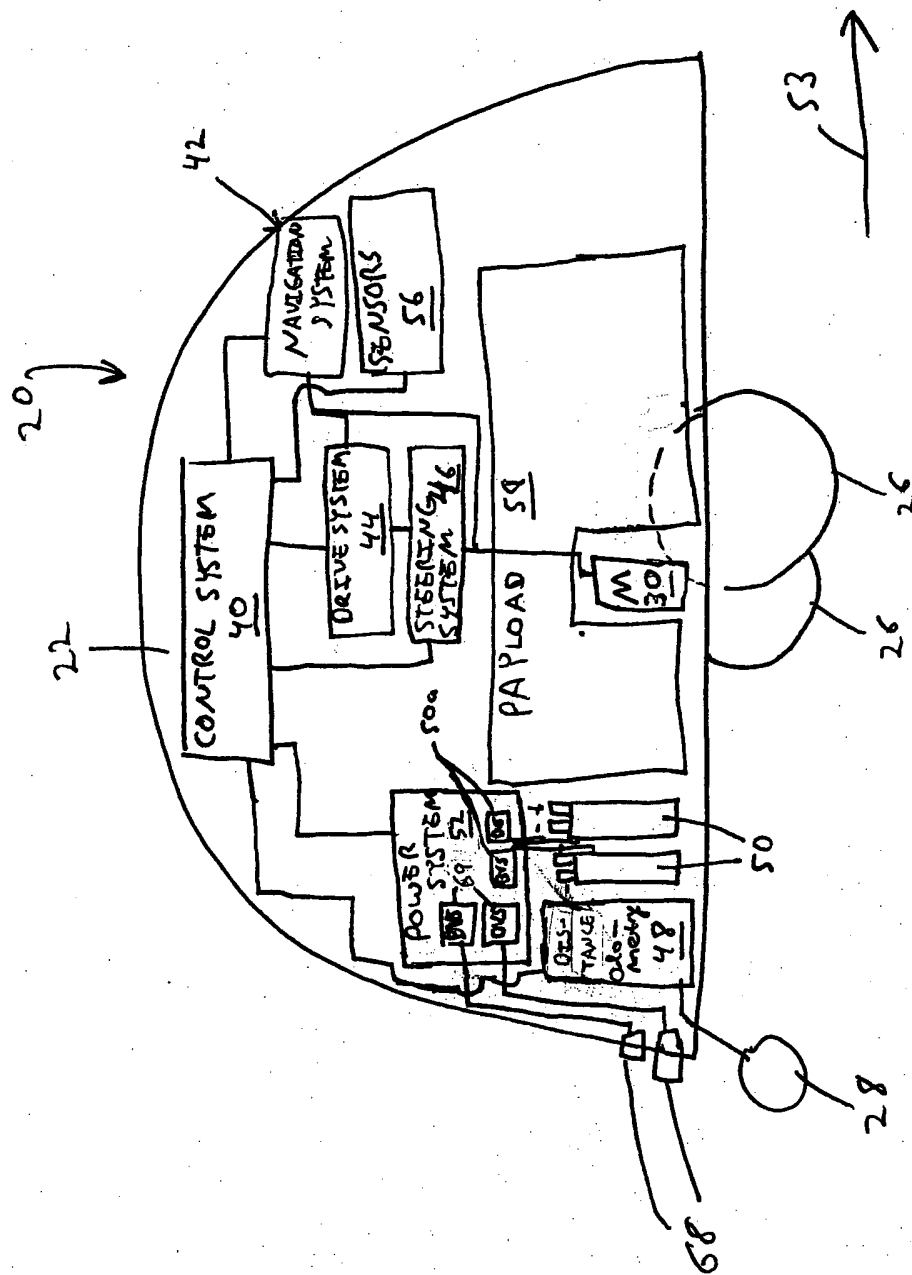


Fig. 1



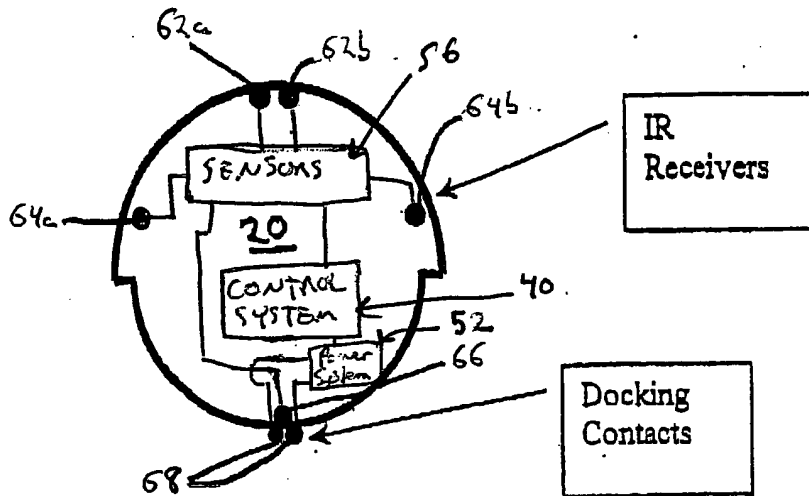


Fig. 2

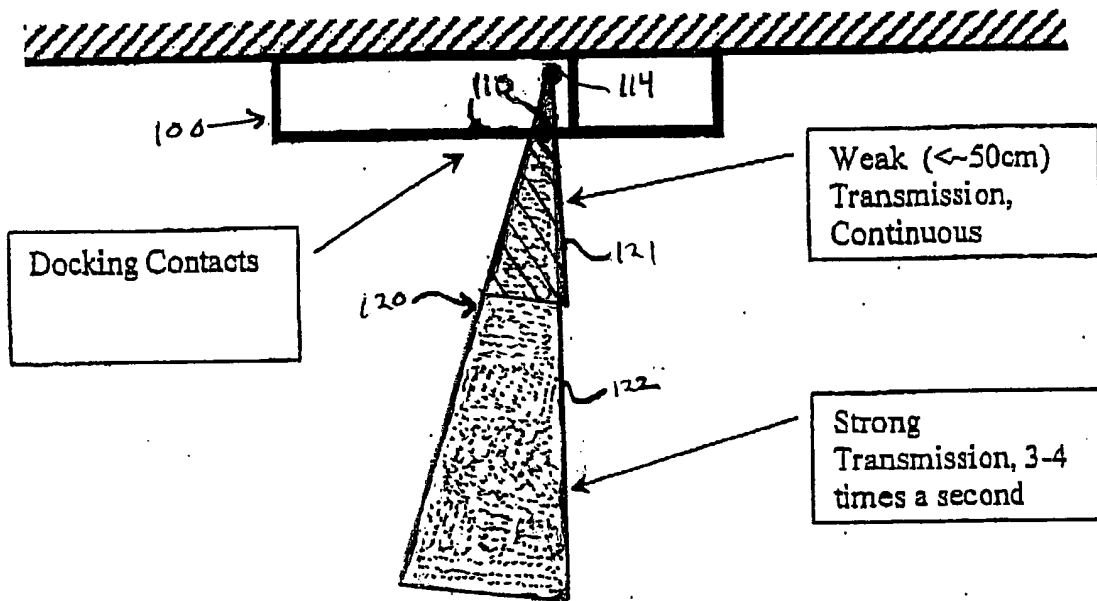
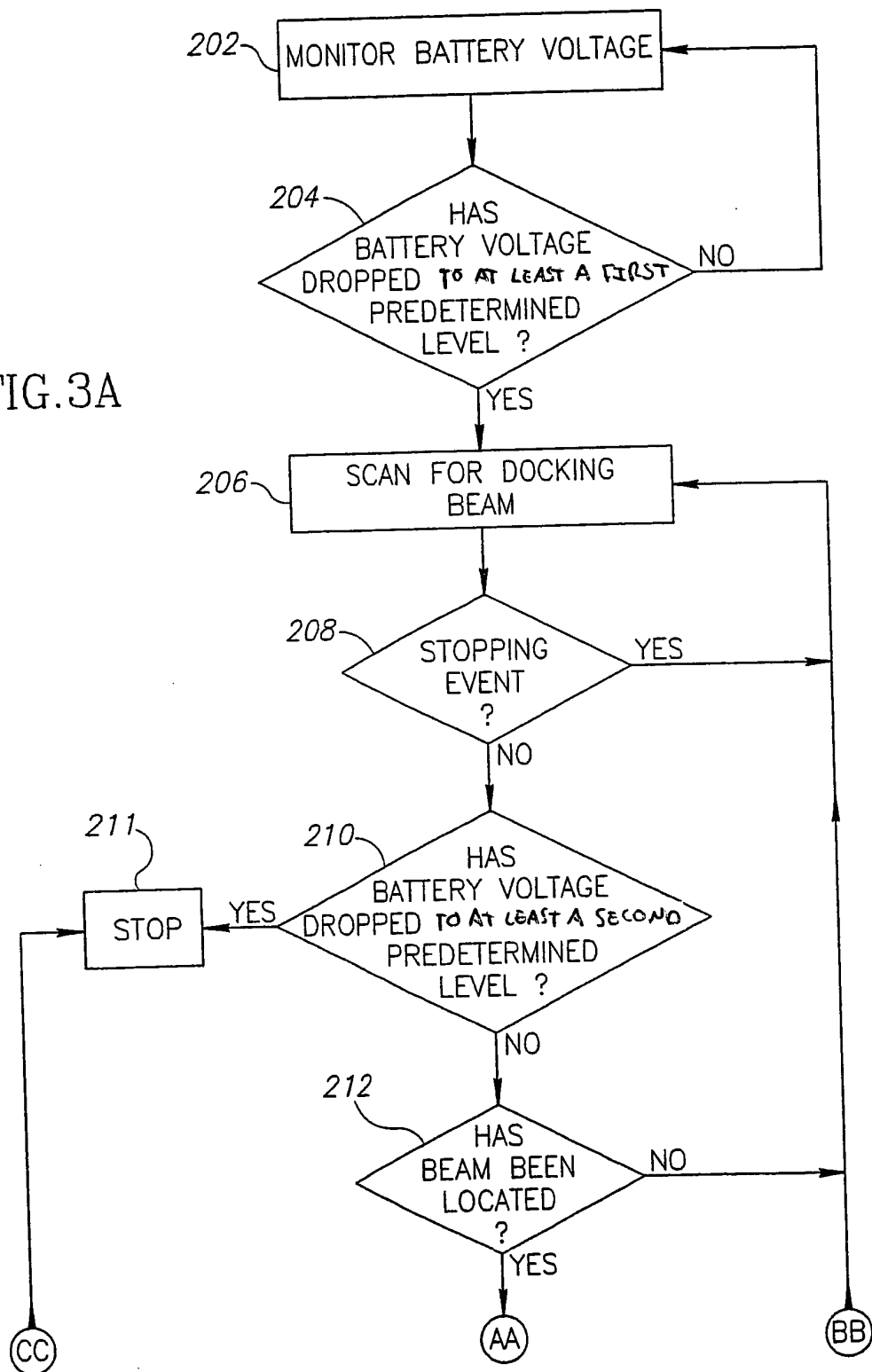


Fig. 4

FIG. 3A



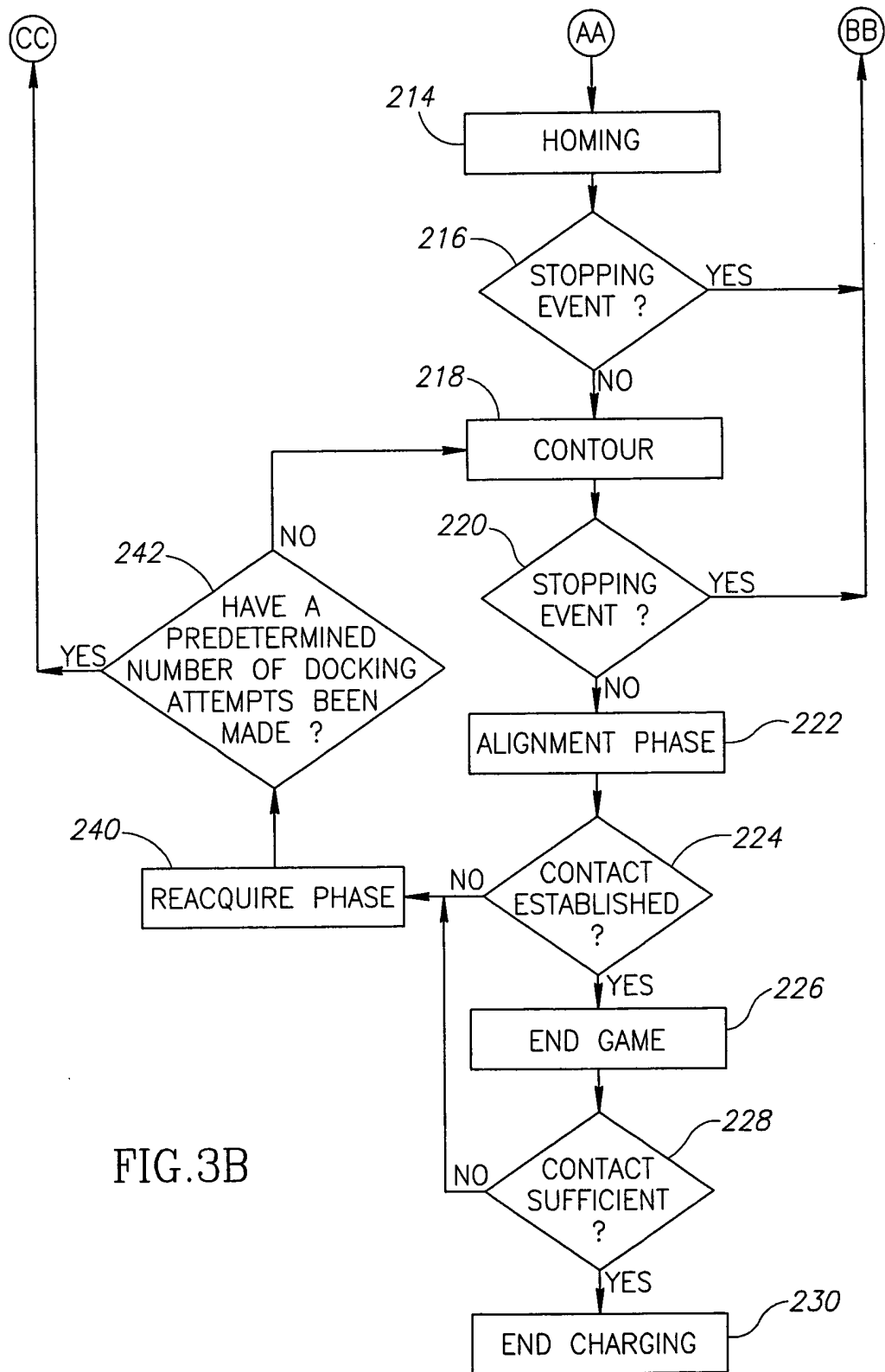


FIG.3B

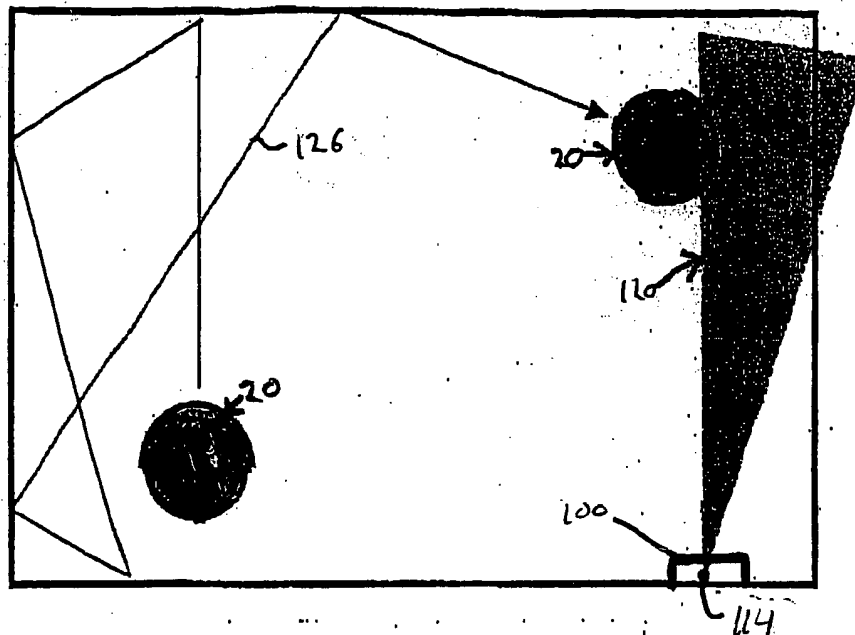


Fig. 5

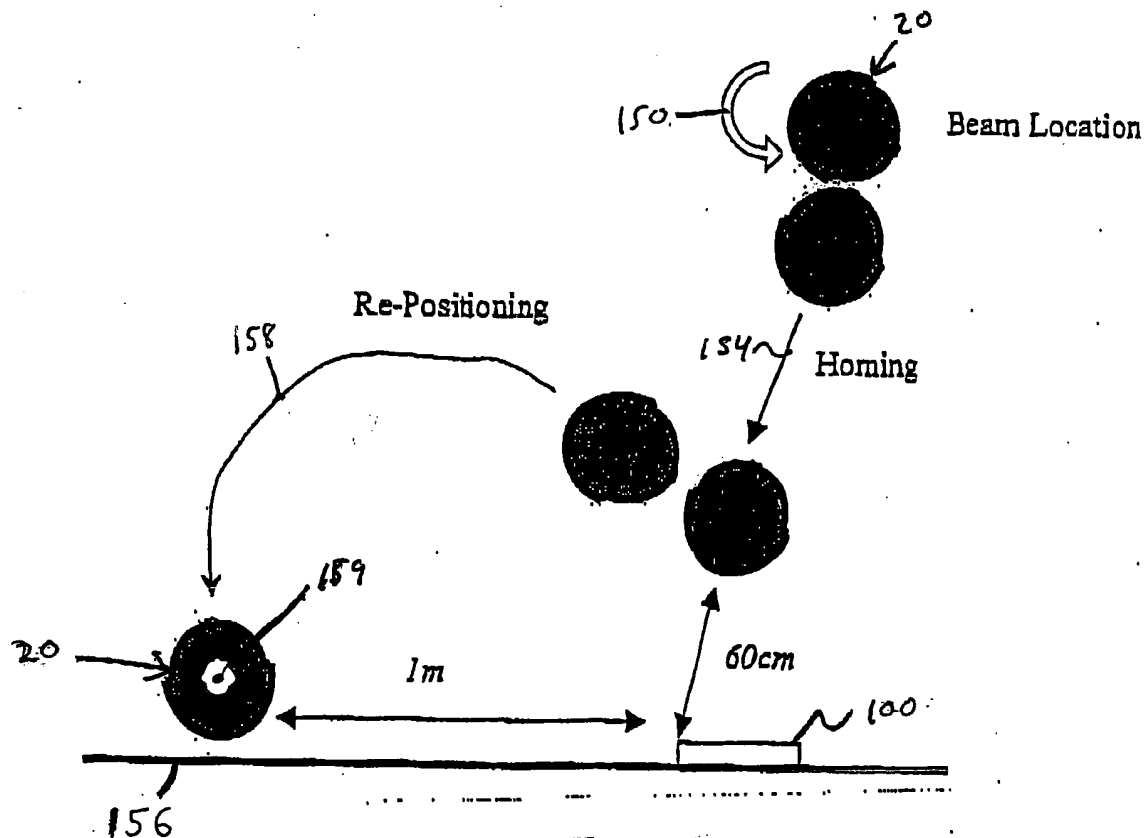
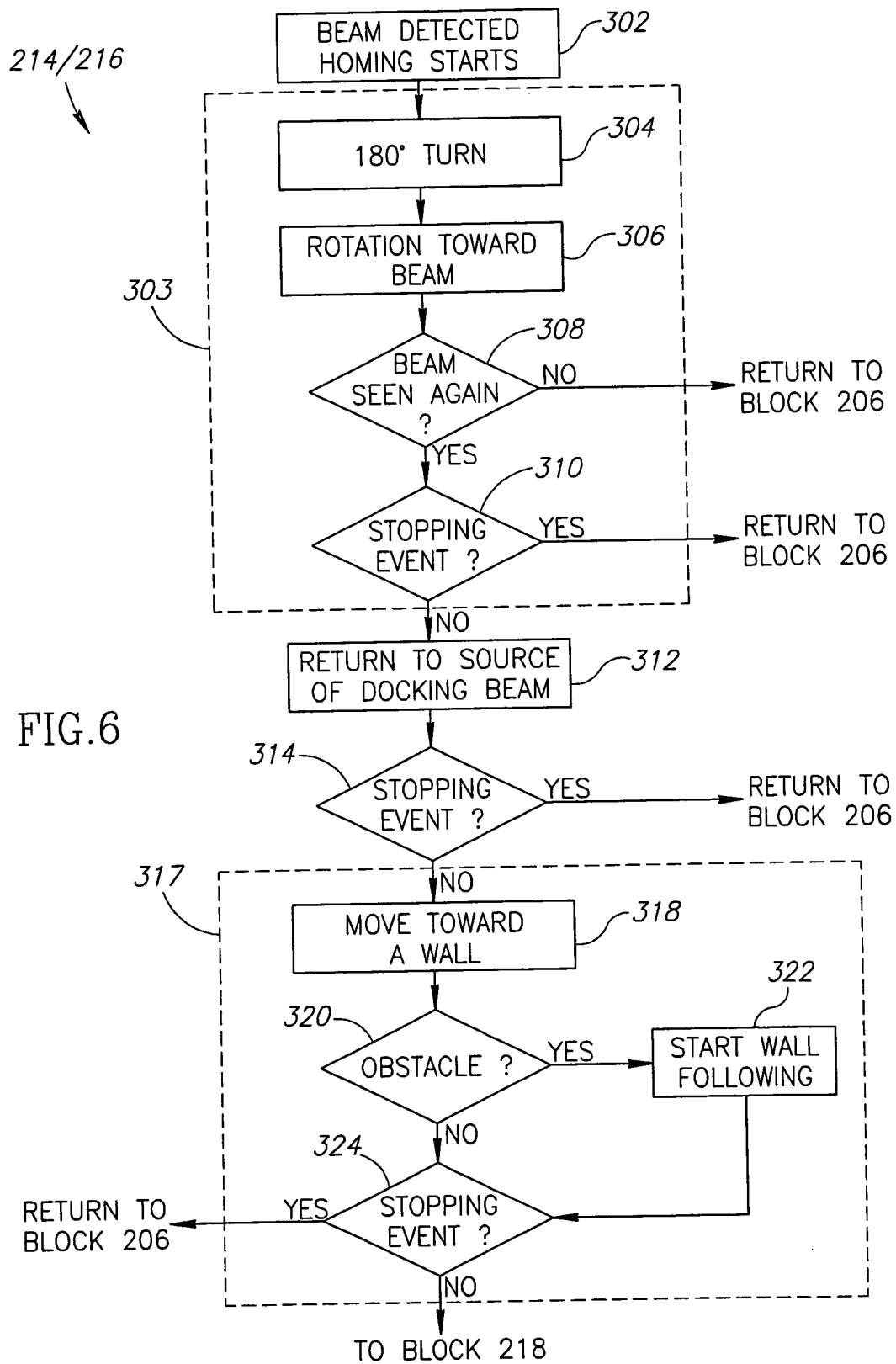


Fig. 7



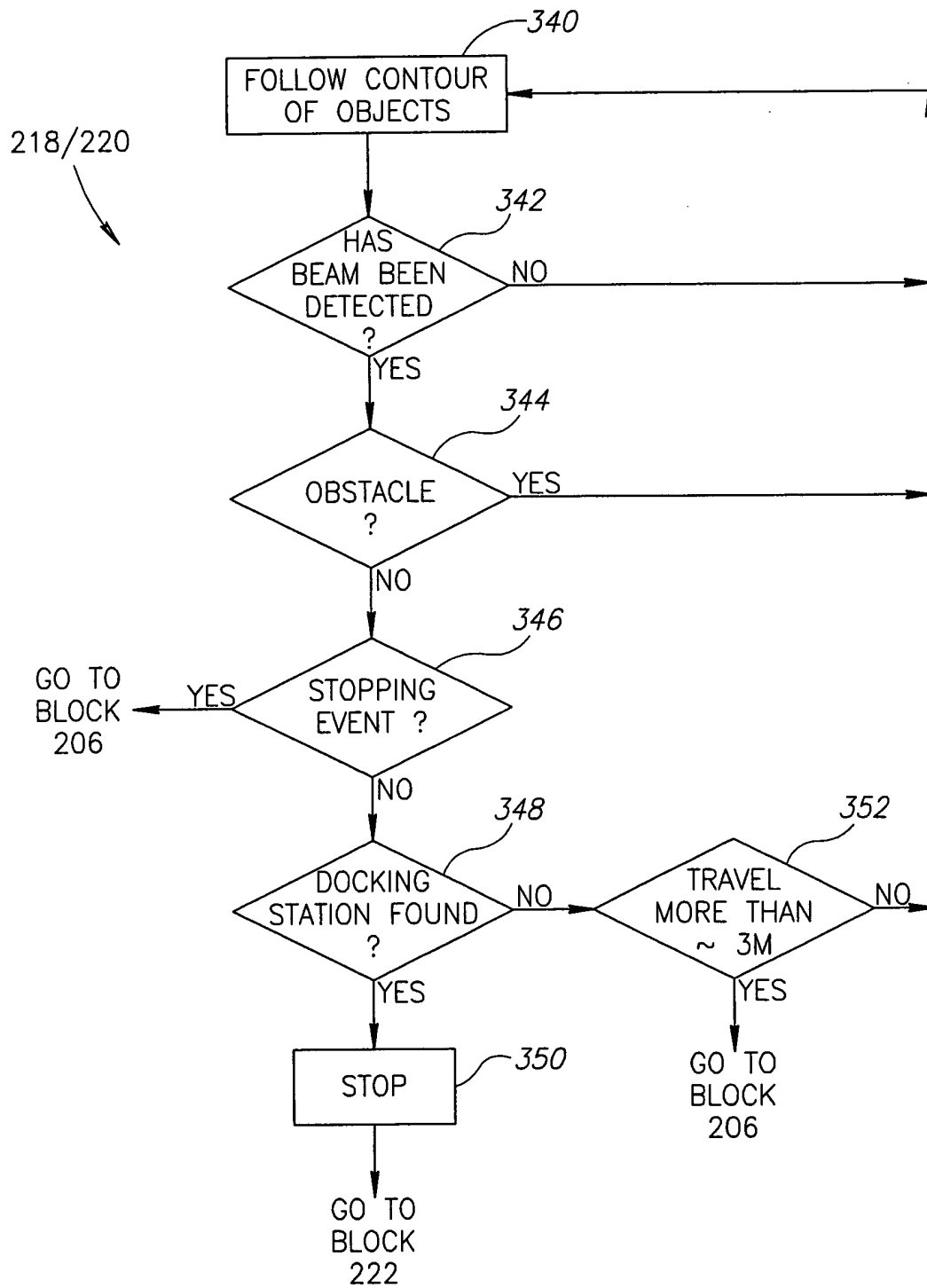


FIG.8

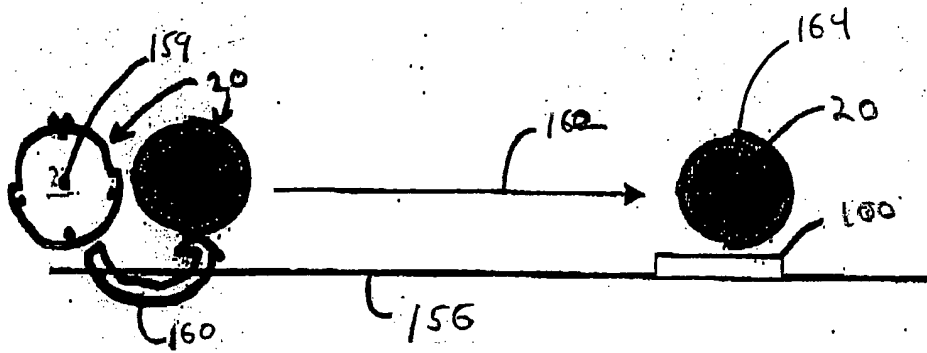


Fig. 9

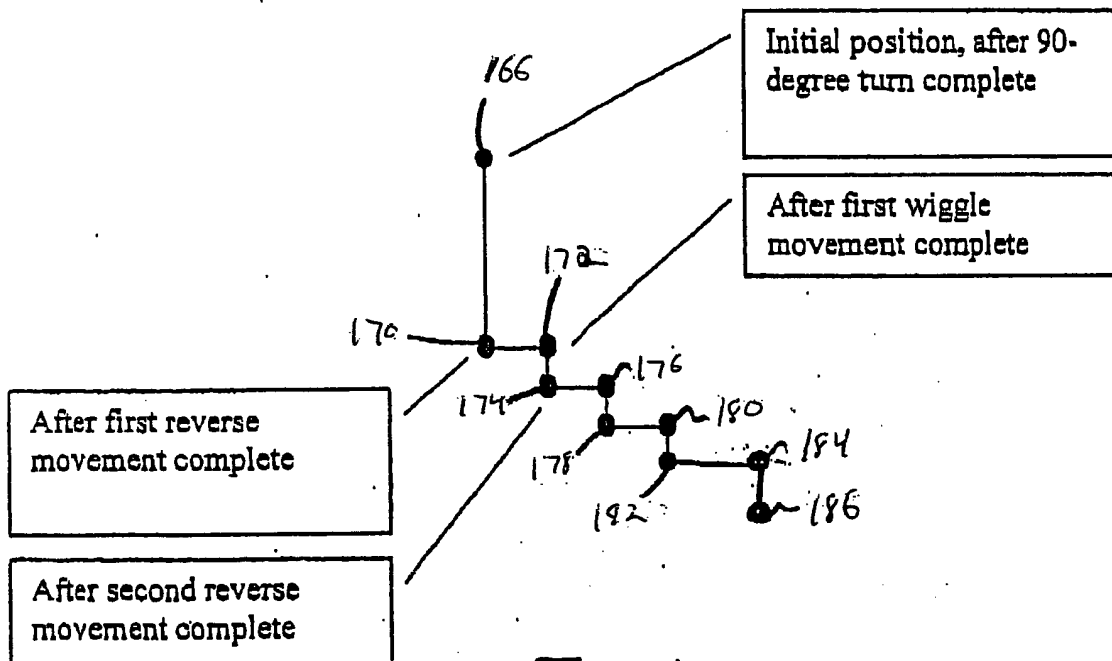


Fig. 11

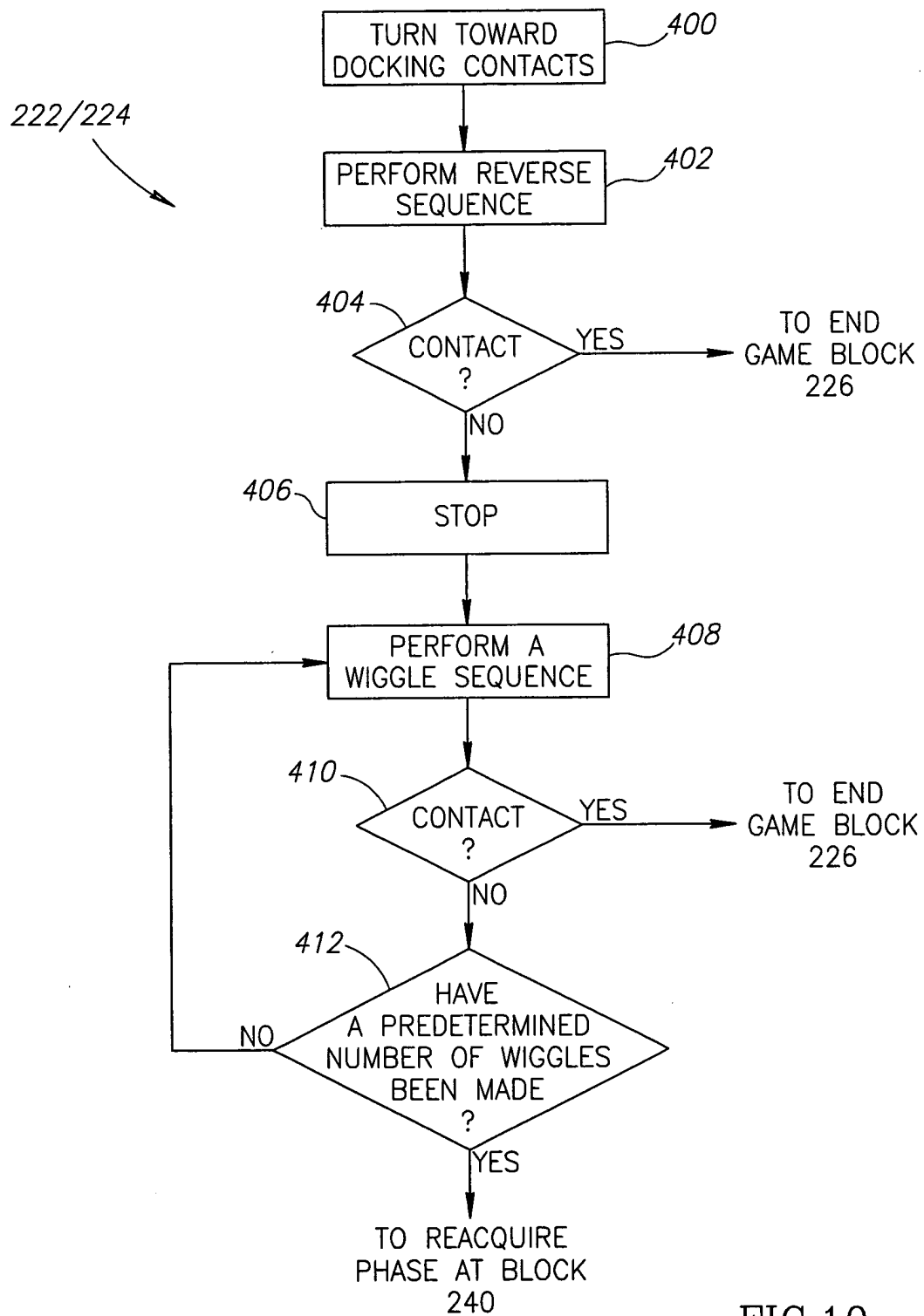


FIG.10

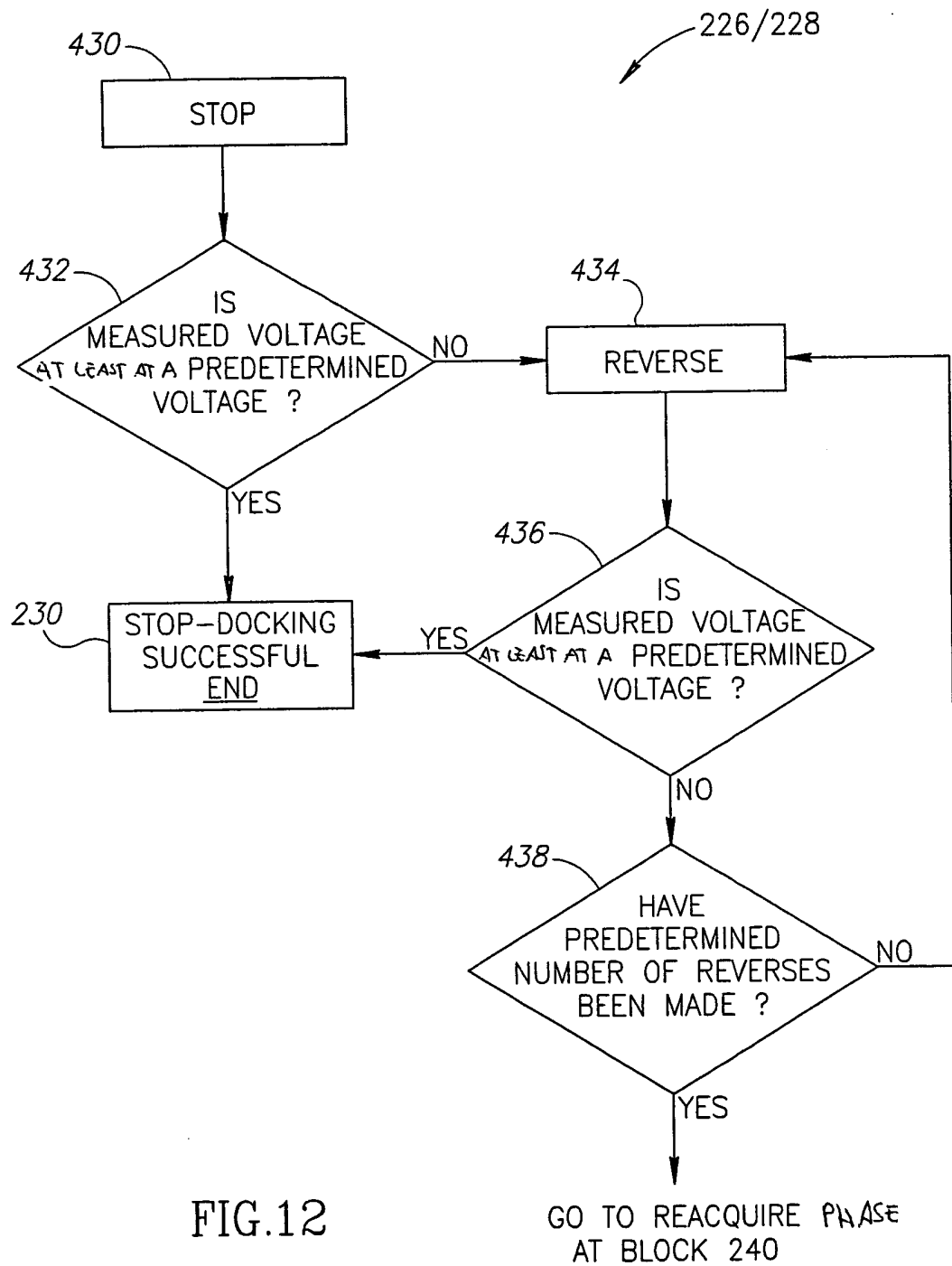


FIG.12

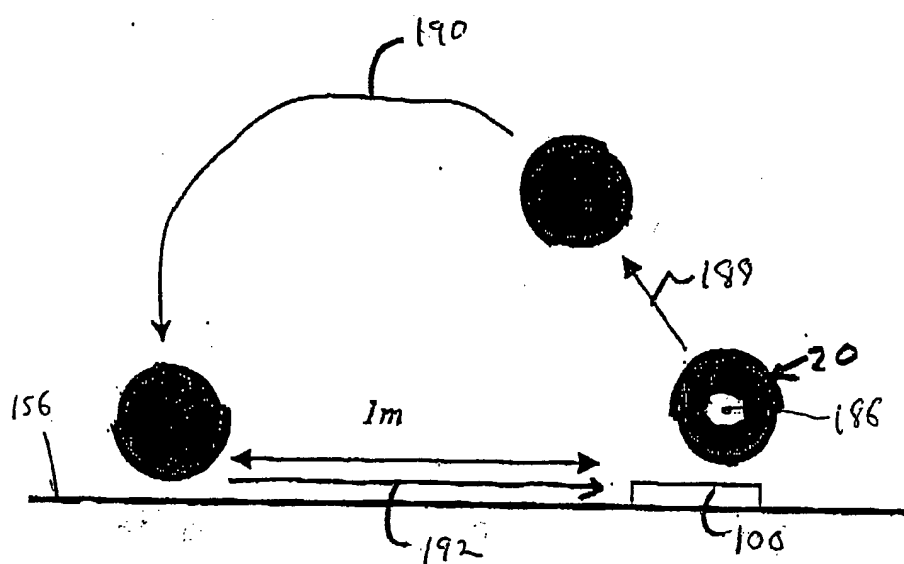


Fig. 13

Docking Station Global View

Obstacle = Bumper/Stair/Wheels Stuck

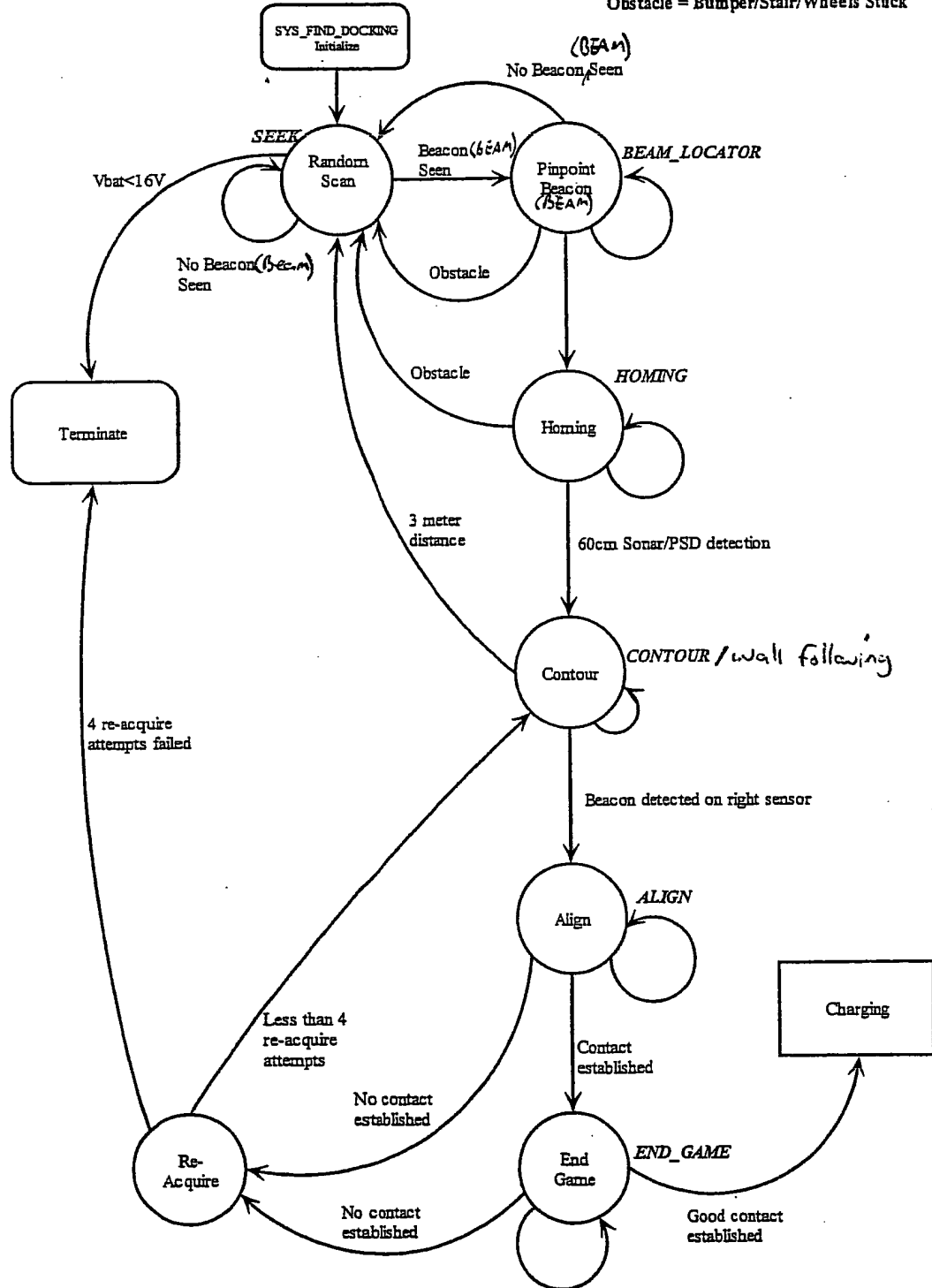


FIG. 14

(Beam)
Pinpoint Beacon State Machine

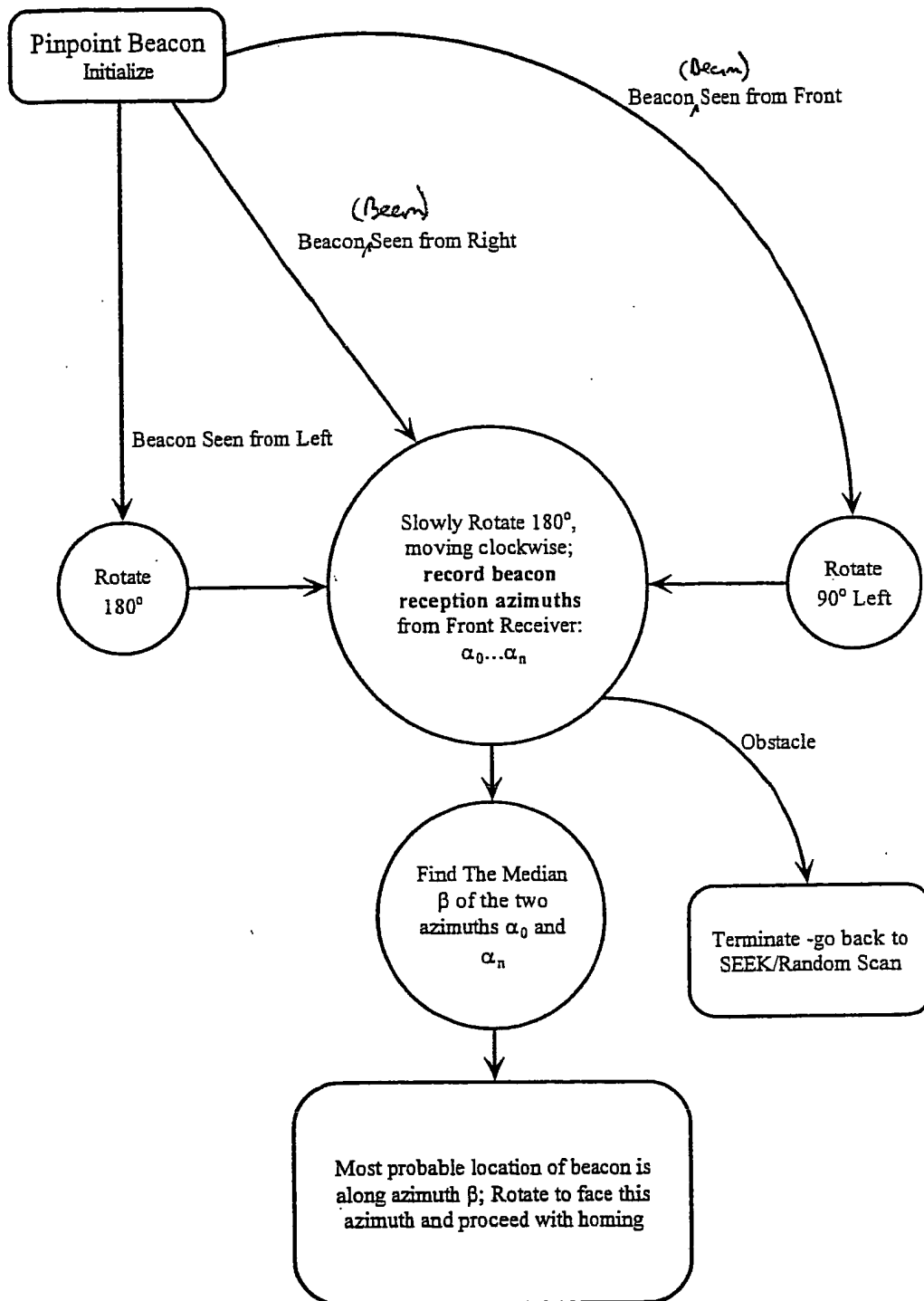


FIG. 15

Homing State Machine

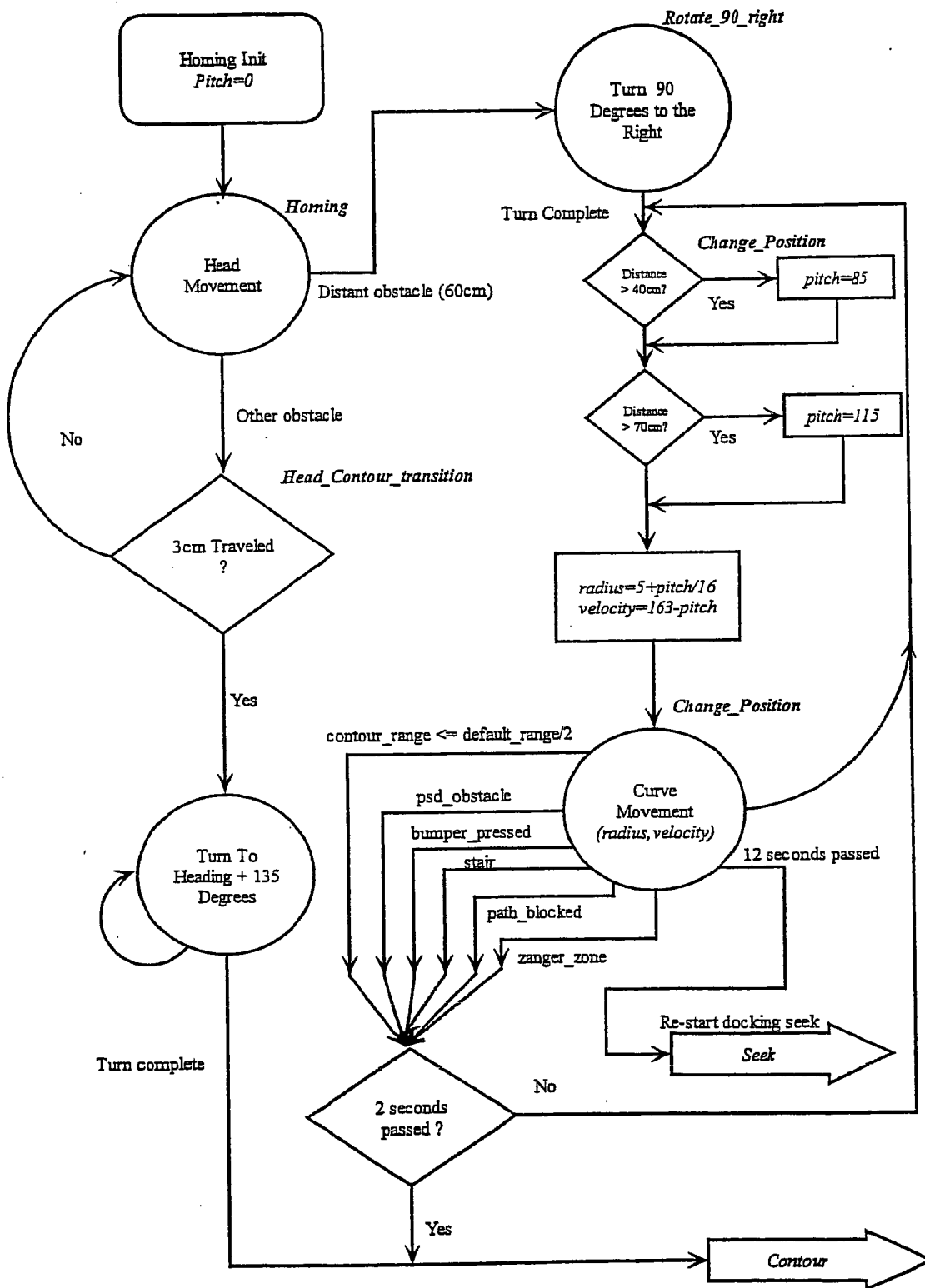


FIG. 16

Contour (Wall Following) State Machine

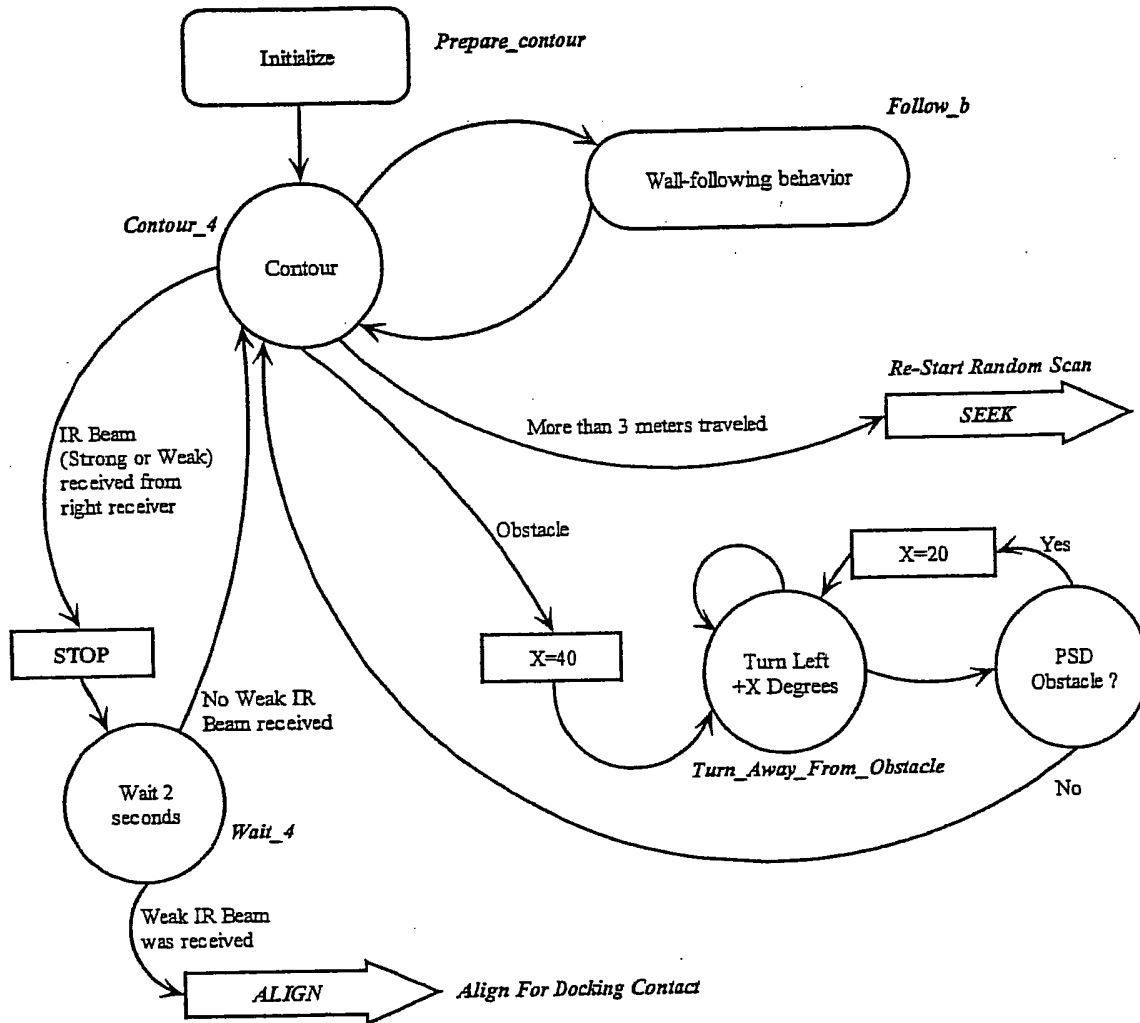


FIG. 17

Align State Machine

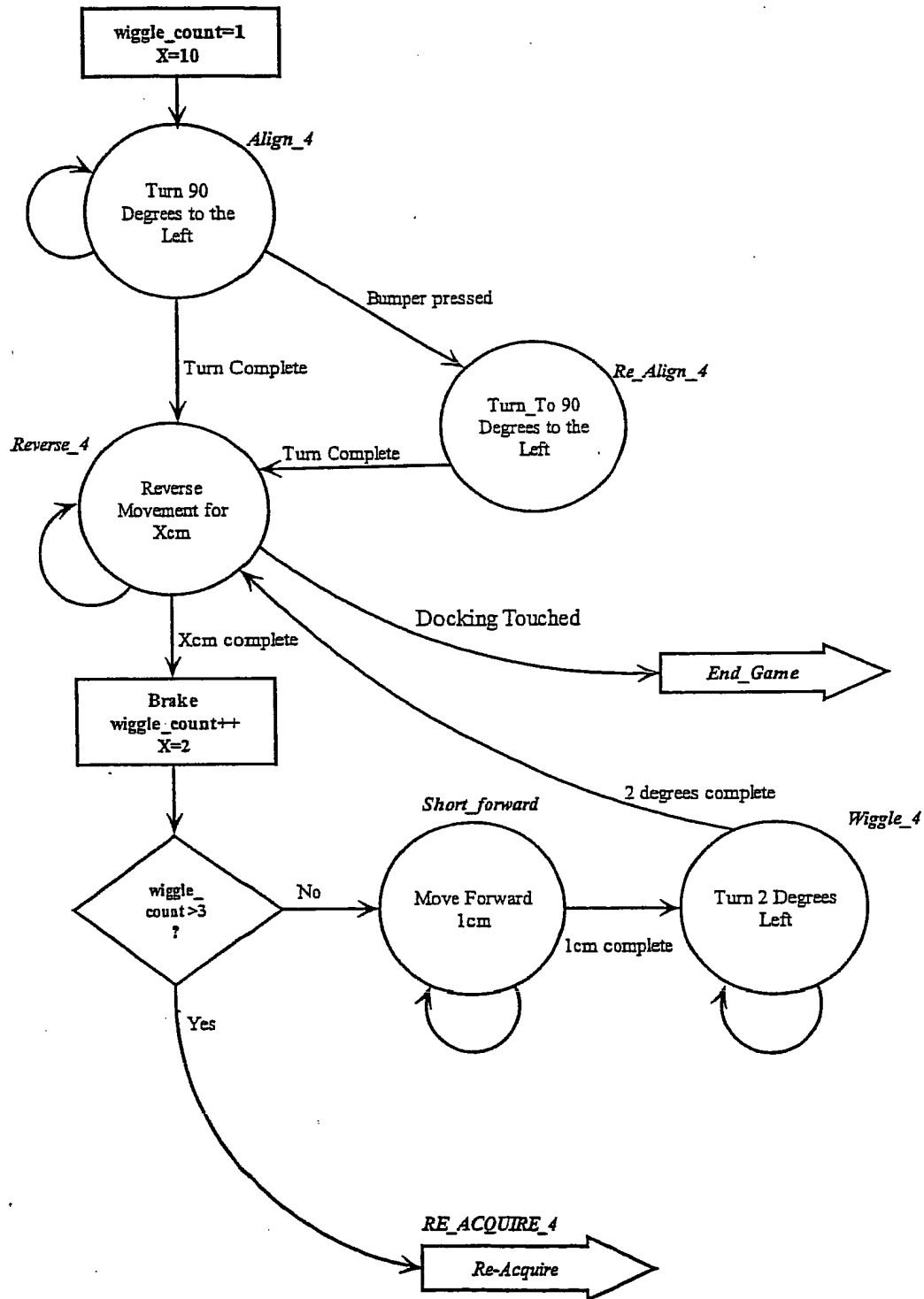


FIG. 18

Final Docking/End Game State Machine

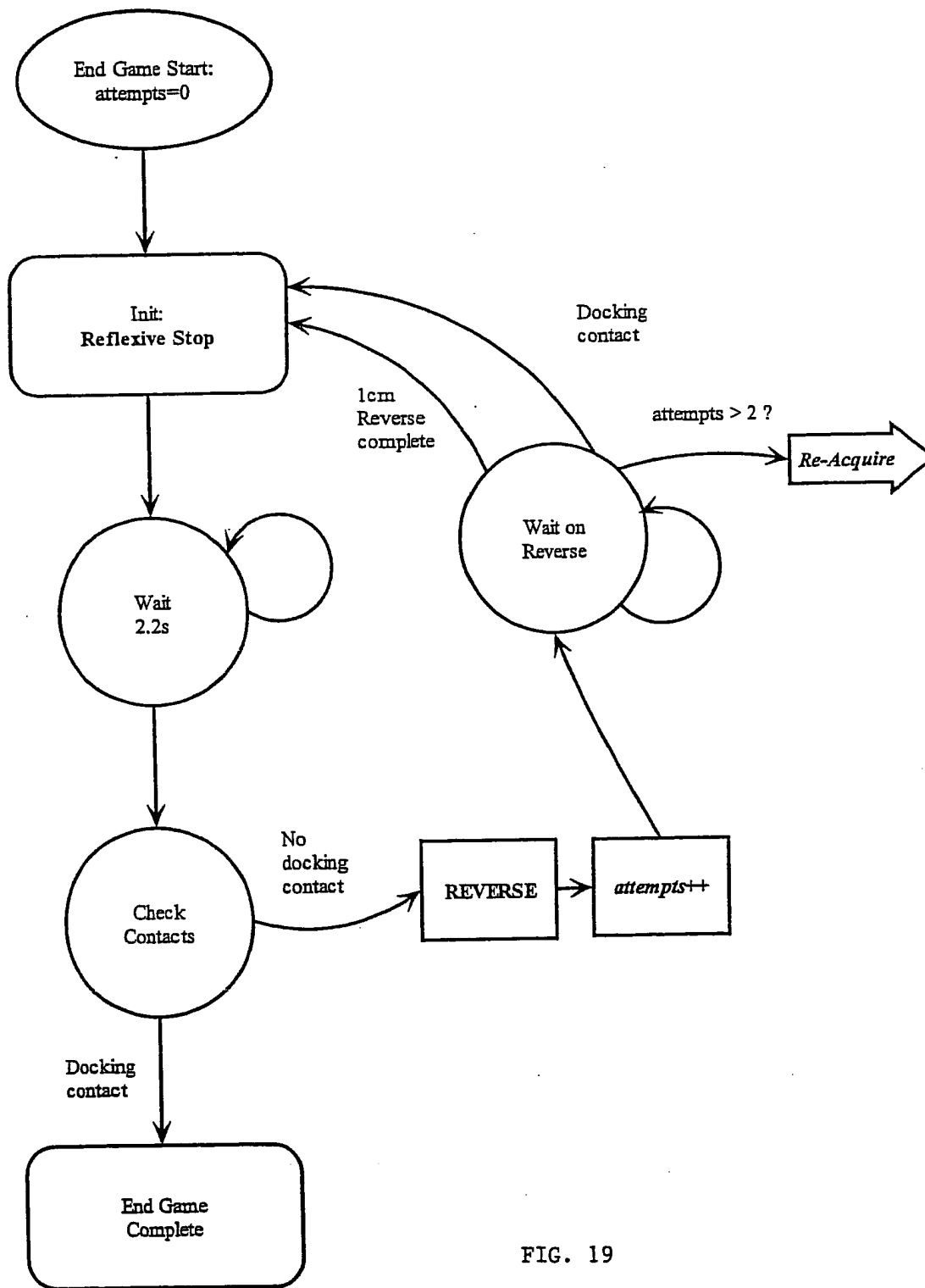


FIG. 19